

IN THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

LISTING OF CLAIMS:

1 1. (original) A gateway for mobile access, comprising:
2 a foreign agent that receives user profile data and session state data from a home
3 authentication, authorization and accounting (AAA) system of a mobile node;
4 at least one dynamic packet filter that performs multi-layer filtering based on the
5 user profile data;
6 wherein the foreign agent transfers a session from a first network to a second
7 network without session interruption, using the session state data, when the mobile node
8 moves from the first network to the second network, and
9 the foreign agent uses the dynamic packet filter to permit Internet access by the
10 mobile node without passing Internet data requested by the mobile node through a
11 network in which the home AAA system is located.

1 2. (original) The gateway of claim 1, further comprising a MAC-address-
2 based filter which blocks packets except for authentication packets that are used to
3 authenticate mobile nodes.

1 3. (original) The gateway of claim 1, wherein the dynamic packet filter
2 performs network layer filtering and one of the group consisting of transport layer
3 filtering and application layer filtering.

1 4. (original) The gateway of claim 1, further comprising a non-volatile
2 storage device in which the user profile data are stored.

1 5. (original) The gateway of claim 1, wherein the non-volatile storage device
2 has a database that stores state information for each active user session.

1 6. (original) The gateway of claim 1, wherein the gateway is coupled to at
2 least one access point, and the gateway transmits from a AAA server in the gateway to the
3 access point an identification of whether a mobile node in communication with the access
4 point is successfully authenticated by the AAA server.

1 7. (original) The gateway of claim 1, wherein the gateway exchanges AAA
2 data with the home AAA system of the mobile node by way of the Internet, and the
3 gateway provides Internet access to the mobile node without passing Internet data
4 requested by the mobile node through the network of the home AAA system.

1 8. (original) The gateway of claim 7, wherein the gateway relays remote
2 authentication dial-in user service packets to the home AAA server.

1 9. (original) The gateway of claim 1, wherein the gateway has a foreign agent
2 that communicates with the home AAA system of the mobile node, and the foreign agent
3 is capable of operating in a relay mode, in which the foreign agent forwards packets to the
4 home AAA of the mobile IP node for authentication, or in a standalone mode, in which
5 authentication computations for the simple IP mobile node are performed in the gateway.

1 10. (original) The gateway of claim 1, the user profile data include per-user
2 policies dynamically obtained from the home AAA server of the mobile node and the
3 gateway further the dynamic packet filter is included in a firewall that uses packet
4 filtering rules that depend on the per-user policies.

1 11. (original) The gateway of claim 10, wherein the firewall includes rules that
2 check a media access control address associated with each received packet.

1 12. (original) The gateway of claim 1, further comprising an 802.11 access
2 point contained within or attached to a housing of the gateway.

1 13. (original) The gateway of claim 1, further comprising a wireless modem
2 contained within or attached to a housing of the gateway.

1 14. (original) The gateway of claim 1, further comprising:
2 an 802.11 access point contained within or attached to a housing of the gateway;
3 and
4 a wireless modem contained within or attached to a housing of the gateway.

1 15. (original) A gateway for mobile access, comprising:
2 a foreign agent that receives user profile data from a home authentication,
3 authorization and accounting (AAA) system of a client, when the client establishes a
4 session with the gateway;
5 a dynamic packet filter that performs multi-layer filtering based on the user profile
6 data;
7 an access point contained within or attached to a housing of the gateway, for
8 communication between the gateway and the client; and
9 a wireless modem contained within or attached to a housing of the gateway,
10 wherein the gateway is mobile, and the modem permits wireless communication between
11 the gateway and a wireless network.

1 16 (original). The gateway of claim 15, wherein the gateway provides Internet
2 access to the client without passing Internet data requested by the client through a
3 network containing the home AAA system of the client.

1 17. (previously presented) The gateway of claim 15, wherein the foreign agent
2 is capable of obtaining a new IP address when the gateway moves from a first network to
3 a second network.

1 18. (original) The gateway of claim 16, wherein, the foreign agent is capable
2 of advertising the new IP address to the client.

1 19. (original) The gateway of claim 15, wherein the dynamic packet filter
2 performs network layer filtering and one of the group consisting of transport layer
3 filtering and application layer filtering.

1 20. (original) The gateway of claim 15, further comprising a non-volatile
2 storage device that stores the session state data, and means for transmitting the stored
3 session state data to the client if the client loses a connection with the gateway and
4 resumes the connection with the gateway.

1 21. (canceled)

1 22. (canceled)

1 23. (canceled)

1 24. (canceled)

1 25. (canceled)

1 26. (canceled)

1 27. (canceled)

1 28. (canceled)

1 29. (original) A computer readable medium encoded with computer program
2 code, wherein, when the code is executed by a processor, the processor performs a
3 method for controlling mobile access, comprising the steps of:

4 filtering incoming packets based on a media access control address of each
5 packet;

6 obtaining user profile data of a mobile IP node from a home authentication,
7 authorization and accounting (AAA) server of a mobile IP node, to determine whether the
8 mobile IP node is registered to access a network by way of a gateway;

9 performing multi-layer filtering based on the user profile data;

10 transferring a session from a first network to a second network in which the
11 mobile IP node is located without session interruption when the mobile node moves to
12 the second network; and

13 providing Internet access to the mobile IP node without passing Internet data
14 requested by the mobile IP node through a network in which the home AAA server is
15 located.

1 30. (canceled)